

	Type	Ref #	Hits	Search Text	DBs
1	BRS	S15	6	S14 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator\$2 and (styrene polyethylene ptfte polyvinylidene pvdf fep polyacrilic polyacrylonitryle) and ((inorganic near oxide\$2) alumina silica zirconia titania)	US-PGPUB; USPAT; USOCR
2	BRS	S14	204	429//322	US-PGPUB; USPAT; USOCR
3	BRS	S13	5	S9 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator\$2 and (styrene polyethylene ptfte polyvinylidene pvdf fep polyacrilic polyacrylonitryle) and ((inorganic near oxide\$2) alumina silica zirconia titania)	US-PGPUB; USPAT; USOCR
4	BRS	S9	77	429//321	US-PGPUB; USPAT; USOCR
5	BRS	S18	1436	429//231.95	US-PGPUB; USPAT; USOCR
6	BRS	S12	8	S9 and lithium and (film layer) and electrode and binder\$2 and porosity and size\$2 and particle\$2	US-PGPUB; USPAT; USOCR
7	BRS	S10	63	S9 and lithium and (film layer)	US-PGPUB; USPAT; USOCR
8	BRS	S11	32	S9 and lithium and (film layer) and electrode and binder\$2	US-PGPUB; USPAT; USOCR

	Type	Ref #	Hits	Search Text	DBs
9	BRS	S19	161	S18 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator\$2 and (styrene polyethylene ptfte polyvinylidene pvdf fep polyacrilic polyacrylonitryle) and ((inorganic near oxide\$2) alumina silica zirconia titania)	US-PGPUB; USPAT; USOCR
10	BRS	S7	0	(hei).in. and battery	JPO
11	BRS	S17	3	S16 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator\$2 and (styrene polyethylene ptfte polyvinylidene pvdf fep polyacrilic polyacrylonitryle) and ((inorganic near oxide\$2) alumina silica zirconia titania)	US-PGPUB; USPAT; USOCR
12	BRS	S5	0	(hei).in. and (lithium same battery)	US-PGPUB; USPAT; USOCR
13	BRS	S8	14	(hei).in. and battery	US-PGPUB; USPAT; USOCR

	Type	Ref #	Hits	Search Text	DBs
14	BRS	S20	38	S18 and lithium and (film layer) and electrode and binder\$2 and (porosity porous pores) and particle\$2 and separator\$2 and (styrene polyethylene ptfte polyvinylidene pvdf fep polyacrylic polyacrylonitrile) and ((inorganic near oxide\$2) alumina silica zirconia titania) and (insulat\$3 adj3 (film layer))	US-PGPUB; USPAT; USOCR
15	BRS	S6	0	(hei).in. and (lithium same battery)	JPO
16	BRS	S4	0	hei.in. and (lithium same battery)	US-PGPUB; USPAT; USOCR
17	BRS	S1	1	10/562438	US-PGPUB
18	BRS	S3	0	hei.in. and (lithium same battery)	US-PGPUB
19	BRS	S2	1	S1 and apparent	US-PGPUB
20	BRS	S16	88	429//323	US-PGPUB; USPAT; USOCR
21	BRS	S34	0	S25 and (insulat\$4 near5 film) and film\$2 and (oxide same filler same binder)	USPAT
22	BRS	S44	1	S25 and pore\$2	USPAT
23	BRS	S40	1	S25 and thickness and porosity	USPAT
24	BRS	S41	1	S25 and thickness and porosity and size\$2	USPAT
25	BRS	S42	0	S25 and thickness and porosity and size\$2 and thick	USPAT
26	BRS	S45	0	S25 and polycrystal\$6	USPAT
27	BRS	S46	1	S25 and crystal\$5	USPAT
28	BRS	S56	9	kawakami.in. and (inorganic near5 oxide) and \$5crystal\$5 and battery and lithium	US-PGPUB; USPAT

	Type	Ref #	Hits	Search Text	DBs
29	BRS	S61	1	S25 and size\$2 and separator and porosity and porous	USPAT
30	BRS	S43	1	S25 and (pore same size\$2)	USPAT
31	BRS	S48	1	S25 and particle\$3 and \$5crystal\$5	USPAT
32	BRS	S47	1	S25 and particle\$3	USPAT
33	BRS	S23	48	inoue.in. and electrode and (inorganic oxide filler) and film and (pores porous porosity) and (binder\$2 adhesive\$2) and (insulat\$4 near5 film\$2)	US-PGPUB; USPAT; USOCR
34	BRS	S22	127	inoue.in. and electrode and (inorganic oxide filler) and film and (pores porous porosity) and (binder\$2 adhesive\$2)	US-PGPUB; USPAT; USOCR
35	BRS	S38	1	S25 and (insulat\$4 near5 film) and film\$2 and oxide and (adhesiv\$4 binder)	USPAT
36	BRS	S31	1	S25 and (organic near5 electrolyte)	USPAT
37	BRS	S37	0	S25 and (insulat\$4 near5 film) and film\$2 and filler and adhesiv\$4	USPAT
38	BRS	S39	1	S25 and (insulat\$4 near5 film) and film\$2 and oxide and (adhesiv\$4 binder) and (cover\$3 near5 film)	USPAT
39	BRS	S25	1	"6395423".pn.	USPAT
40	BRS	S24	9	inoue.in. and electrode and (inorganic oxide filler) and film and (pores porous porosity) and (binder\$2 adhesive\$2) and (insulat\$4 near5 film\$2) and (lithium near5 battery)	US-PGPUB; USPAT; USOCR

	Type	Ref #	Hits	Search Text	DBs
41	BRS	S28	0	S25 and aqueous	USPAT
42	BRS	S30	1	S25 and electrolyte and separator and electrode\$2 and battery	USPAT
43	BRS	S49	1	10/562438	US-PGPUB
44	BRS	S29	1	S25 and electrolyte and separator and electrode\$2	USPAT
45	BRS	S54	2	kawakami.in. and (inorganic near5 oxide) same \$5crystal\$5	US-PGPUB; USPAT
46	BRS	S50	1	S49 and polycrystal\$6	US-PGPUB
47	BRS	S52	0	kawakimi.in. and (inorganic near5 oxide)	US-PGPUB; USPAT
48	BRS	S53	70	kawakami.in. and (inorganic near5 oxide)	US-PGPUB; USPAT
49	BRS	S51	0	kawakimi.in. and (inorganic near5 oxide)	US-PGPUB
50	BRS	S55	48	kawakami.in. and (inorganic near5 oxide) and \$5crystal\$5	US-PGPUB; USPAT
51	BRS	S36	0	S25 and (insulat\$4 near5 film) and film\$2 and oxide and filler and adhesiv\$4	USPAT
52	BRS	S58	0	S57 and \$5crystal\$5	USPAT
53	BRS	S59	1	S25 and size and separator	USPAT
54	BRS	S63	0	S57 and separator and por\$6	USPAT
55	BRS	S62	1	S25 and size\$2 and separator and porosity and porous and pore	USPAT
56	BRS	S60	1	S25 and size\$2 and separator	USPAT
57	BRS	S21	14966	inoue.in.	US-PGPUB; USPAT; USOCR
58	BRS	S65	1	"6811928".pn.	USPAT
59	BRS	S67	1	S65 and separator and por\$6	USPAT
60	BRS	S64	0	S57 and separator	USPAT
61	BRS	S57	1	"6811982".pn.	USPAT
62	BRS	S66	0	S65 and \$5crystal\$5	USPAT

	Type	Ref #	Hits	Search Text	DBs
63	BRS	S26	0	S25 and (aqueous same electrolyte same battery) and (positive same negative same electrode\$2 same separator\$2)	USPAT
64	BRS	S35	0	S25 and (insulat\$4 near5 film) and film\$2 and oxide and filler and binder	USPAT
65	BRS	S32	1	S25 and electrolyte	USPAT
66	BRS	S33	1	S25 and (insulat\$4 near5 film)	USPAT
67	BRS	S27	0	S25 and (aqueous same electrolyte same battery) and (electrode\$2 same separator\$2)	USPAT
68	BRS	S71	3843	S70 separator and actual and ratio	US-PGPUB
69	BRS	S72	1	S70 and separator and actual and ratio	US-PGPUB
70	BRS	S73	0	(zhang same zhangming).in.	US-PGPUB; USPAT
71	BRS	S81	3	S77 and separator and film and porosity and size\$2 and pore	US-PGPUB; USPAT
72	BRS	S85	0	(ito same masanori).in. and separator and lithium and battery	US-PGPUB; USPAT
73	BRS	S86	0	S82 and separator and lithium and battery	US-PGPUB; USPAT
74	BRS	S111	1	"6395423".pn.	USPAT
75	BRS	S87	3	S82 and battery	US-PGPUB; USPAT
76	BRS	S70	1	10/562438	US-PGPUB
77	BRS	S97	1	S96 and porosity	US-PGPUB; USPAT; USOCR
78	BRS	S83	0	(ito same masanori).in. and separator and lithium and battery and insulat\$6 and film	US-PGPUB; USPAT

	Type	Ref #	Hits	Search Text	DBs
79	BRS	S109	1	S108 and polypropylene and separator and porosity	US-PGPUB; USPAT; USOCR
80	BRS	S110	71	(lithium same battery) and (((polypropylene PPE) near5 separator) same porosity) and porosity	US-PGPUB; USPAT; USOCR
81	BRS	S74	0	cellgard.as.	US-PGPUB; USPAT
82	BRS	S75	55	celgard.as.	US-PGPUB; USPAT
83	BRS	S76	23	celgard.as. and separator and lithium and battery	US-PGPUB; USPAT
84	BRS	S93	733	(lithium same battery) and separator and ((insulative insulating ceramic) near5 (layer film)) and (pore porous porosity)	US-PGPUB; USPAT; USOCR
85	BRS	S96	1	"6395423".pn.	US-PGPUB; USPAT; USOCR
86	BRS	S106	1	"4791144".pn.	US-PGPUB; USPAT; USOCR
87	BRS	S103	30	(lithium near battery) and ((inorganic ceramic) same (film separator) same porosity)	US-PGPUB; USPAT; USOCR
88	BRS	S108	1	"6881515".pn.	US-PGPUB; USPAT; USOCR
89	BRS	S88	372	(lithium same battery) and (separator near5 porosity)	US-PGPUB; USPAT; USOCR
90	BRS	S89	359	(lithium same battery) and (separator near5 porosity) and (ceramic nea5 (layer film)) and (pore porous porosity)	US-PGPUB; USPAT; USOCR
91	BRS	S90	11	(lithium same battery) and (separator near5 porosity) and (ceramic near5 (layer film)) and (pore porous porosity)	US-PGPUB; USPAT; USOCR

	Type	Ref #	Hits	Search Text	DBs
92	BRS	S82	67	(ito same masanori).in.	US-PGPUB; USPAT
93	BRS	S91	0	(lithium same battery) and (separator near5 porosity) and (ceramic near5 (layer film)) and (pore porous porosity)	EPO; JPO; DERWENT
94	BRS	S94	96	(lithium same battery) and (separator near5 porosity) and ((insulative insulating ceramic) near5 (layer film)) and (pore porous porosity)	US-PGPUB; USPAT; USOCR
95	BRS	S104	30	(lithium near battery) and ((inorganic ceramic) same (film separator) same porosity) and porosity	US-PGPUB; USPAT; USOCR
96	BRS	S105	41	(lithium near battery) and ((inorganic ceramic) same (layer film separator coat\$3) same porosity) and porosity	US-PGPUB; USPAT; USOCR
97	BRS	S78	1	"6432586".pn.	US-PGPUB; USPAT
98	BRS	S79	1	S78 and separator and film and porosity	US-PGPUB; USPAT
99	BRS	S80	1	S78 and separator and film and porosity and size\$2 and pore	US-PGPUB; USPAT
100	BRS	S98	1	"6811928".pn.	USPAT
101	BRS	S99	1	S98 and porosity	US-PGPUB; USPAT; USOCR
102	BRS	S100	1	"6287720".pn.	US-PGPUB; USPAT; USOCR
103	BRS	S101	1	S100 and porosity	US-PGPUB; USPAT; USOCR
104	BRS	S102	96	(lithium near battery) and (separator same (polypropylene PPE) same porosity)	US-PGPUB; USPAT; USOCR
105	BRS	S107	1	S106 and filler\$2 and porosity	US-PGPUB; USPAT; USOCR

	Type	Ref #	Hits	Search Text	DBs
106	BRS	S84	0	(ito same masanori).in. and separator and lithium and battery and film	US-PGPUB; USPAT
107	BRS	S113	1	S111 and (porosity pore size\$2 porous) and separator and inorganic	USPAT
108	BRS	S112	0	S111 and (porosity pore size\$2 porous) and separator and filler	USPAT
109	BRS	S69	17	(lithium same battery) and (insulat\$4 near5 (film layer)) and (separator near5 porosity) and ((insulat\$4 near5 (film layer)) same porosity)	US-PGPUB; USPAT; USOCR
110	BRS	S68	357	(lithium same battery) and (insulat\$4 near5 (film layer)) and porosity	US-PGPUB; USPAT; USOCR
111	BRS	S95	106	(lithium same battery) and (separator near5 porosity) and ((insulating ceramic inorganic) near5 (layer film)) and (pore porous porosity)	US-PGPUB; USPAT; USOCR
112	BRS	S77	12	(zhang same zhengming).in.	US-PGPUB; USPAT
113	BRS	S92	18	(lithium same battery) and (separator same porosity) and (ceramic near5 (layer film)) and (pore porous porosity)	US-PGPUB; USPAT; USOCR
114	BRS	S150	2	(sol near5 polycrystalline) and particles and colloid\$3	USPAT
115	BRS	S147	29	(sol near5 polycrystalline) and particles	USPAT
116	BRS	S153	0	S114 and binder	USPAT

	Type	Ref #	Hits	Search Text	DBs
117	BRS	S172	63	(lithium same battery) and (roughness near3 (anode cathode electrode)) and roughness	US-PGPUB; USPAT
118	BRS	S146	1	S118 and inorganic	USPAT
119	BRS	S148	0	(sol near5 polycrystalline) and particles and colloid	USPAT
120	BRS	S145	0	S118 and filler\$2	USPAT
121	BRS	S149	0	(sol near5 polycrystalline) and particles and colloid	USPAT
122	BRS	S117	7	S116 and lithium and battery and film and porosity	EPO; JPO; DERWENT
123	BRS	S138	1	S118 and crystal\$5 and size\$2	USPAT
124	BRS	S141	1	S134 and polycrystal\$	US-PGPUB
125	BRS	S140	0	S134 and polycrystal\$^	US-PGPUB
126	BRS	S144	125	(lithium same battery) and (filler\$2 same (crystalline polycrystal\$5 crystal\$))	US-PGPUB; USPAT
127	BRS	S139	0	S130 and crystal\$5	US-PGPUB
128	BRS	S173	63	(lithium same battery) and (roughness near3 (anode cathode electrode)) and roughness	US-PGPUB; USPAT; USOCR
129	BRS	S143	25	(lithium same battery) and (filler\$2 same (crystalline polycrystal\$5 crystal\$) same film)	US-PGPUB; USPAT
130	BRS	S167	65	(lithium same battery) and (surface same roughness same adhesion) and roughness	US-PGPUB; USPAT
131	BRS	S134	1	10/562438	US-PGPUB
132	BRS	S160	0	S130 and binder\$2	US-PGPUB

	Type	Ref #	Hits	Search Text	DBs
133	BRS	S137	29	(lithium same battery) and (electrode same roughness) and (dry\$3 same (speed rate))	US-PGPUB; USPAT
134	BRS	S171	203	(lithium same battery) and (roughness same (anode cathode electrode)) and roughness	US-PGPUB; USPAT
135	BRS	S176	1	S118 and void\$2	USPAT
136	BRS	S135	1	S134 and electrode\$2 and rough\$4	US-PGPUB
137	BRS	S136	170	(lithium same battery) and (electrode same roughness)	US-PGPUB; USPAT
138	BRS	S119	0	S114 and separator and porosity	USPAT
139	BRS	S131	1	S130 and porosity	US-PGPUB
140	BRS	S133	1	S130 and pore and size\$2	US-PGPUB
141	BRS	S127	0	sun.in. and (lithium near5 battery). and (heat near activatabl)	USPAT
142	BRS	S130	1	"20030152828"	US-PGPUB
143	BRS	S129	7	sun.in. and (lithium near5 battery) and (heat near activatable)	US-PGPUB; USPAT
144	BRS	S132	1	S118 and pore and size\$3	USPAT
145	BRS	S128	0	sun.in. and (lithium near5 battery) and (heat near activatabl)	US-PGPUB; USPAT
146	BRS	S168	5	(lithium same battery) and (surface same roughness same adhesion same separator) and roughness	US-PGPUB; USPAT
147	BRS	S161	1	S130 and part\$2	US-PGPUB
148	BRS	S158	1	S118 and part\$2	USPAT
149	BRS	S152	1	S130 and size\$2	US-PGPUB
150	BRS	S120	1	S118 and separator and porosity	USPAT
151	BRS	S163	1	S118 and colloid\$3	USPAT
152	BRS	S118	1	"6395423".pn.	USPAT

	Type	Ref #	Hits	Search Text	DBs
153	BRS	S115	9	S114 and lithium and battery and film and porosity	EPO; JPO; DERWENT
154	BRS	S164	1	"6811928".pn.	USPAT
155	BRS	S126	3	S125 and (lithium near5 battery) and (separator\$4 near5 porosity) and porosity and separator	US-PGPUB; USPAT
156	BRS	S162	0	S118 and colloid\$3	US-PGPUB
157	BRS	S174	0	S130 and void\$2	US-PGPUB
158	BRS	S169	34	(lithium same battery) and (roughness same adhesion same electrode) and roughness	US-PGPUB; USPAT
159	BRS	S170	35	(lithium same battery) and (roughness same adhesion same (anode cathode electrode)) and roughness	US-PGPUB; USPAT
160	BRS	S114	4301	H01M006/18	EPO; JPO; DERWENT
161	BRS	S175	0	S130 and void\$2	USPAT
162	BRS	S165	1	S164 and filler	USPAT
163	BRS	S123	276	(lithium near5 battery) and (separator\$4 near5 porosity) and porosity	US-PGPUB; USPAT
164	BRS	S121	1	S118 and separator\$2 and porosit\$4	USPAT
165	BRS	S156	1	S118 and cross\$7 and binder	USPAT
166	BRS	S124	276	(lithium near5 battery) and (separator\$4 near5 porosity) and porosity and separator	US-PGPUB; USPAT
167	BRS	S122	276	(lithium near5 battery) and (separator\$4 near5 porosity)	US-PGPUB; USPAT
168	BRS	S116	17647	H01M004/58	EPO; JPO; DERWENT
169	BRS	S125	707	nagayama.in.	US-PGPUB; USPAT

	Type	Ref #	Hits	Search Text	DBs
170	BRS	S166	65	(lithium same battery) and (surface same roughness same adhesion)	US-PGPUB; USPAT
171	BRS	S159	0	S130 and binder\$2 and part\$2	US-PGPUB
172	BRS	S151	0	S130 and size\$2	USPAT
173	BRS	S157	0	S118 and cross\$7 and binder and weight	USPAT
174	BRS	S142	17	(lithium same battery) and (filler\$2 same (crystalline polycrystal\$5 crystal\$) same film)	US-PGPUB
175	BRS	S155	1	S118 and cross\$7	USPAT
176	BRS	S154	0	S114 and cross\$7	USPAT

	Type	L #	Hits	Search Text	DBs
1	BRS	L1	255	((inoue same kaoru) (kato same kiyomi) (suzuki same kohei) (ikuta same shigeo) (fukumoto same yusuke) (hayashi same tetsuya)).in.	US- PGPUB; USPAT; USOCR
2	BRS	L2	29	((inoue same kaoru) (kato same kiyomi) (suzuki same kohei) (ikuta same shigeo) (fukumoto same yusuke) (hayashi same tetsuya)).in. and lithium and electrode and porosity and separator	US- PGPUB; USPAT; USOCR
3	BRS	L3	25	((inoue same kaoru) (kato same kiyomi) (suzuki same kohei) (ikuta same shigeo) (fukumoto same yusuke) (hayashi same tetsuya)).in. and lithium and electrode and porosity and separator and insulat\$4	US- PGPUB; USPAT; USOCR